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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|----------------|----------------------|--------------------------------|------------------|
| 10/786,455 | 02/24/2004 | Kei Sakagami | B-5382 621724-9 | 4911 |
| ▼ . 75 | 590 01/31/2008 | | EXAM | INER |
| LADAS & PARI | RY | | PAUL, 1 | DISLER |
| - Suite #2100 | | | ART UNIT | PAPER NUMBER |
| 5670 Wilshire Bou Los Angeles, CA 9 | | | 2615 DATE MAILED: 01/31/200 | 8 |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 815 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 815 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

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01/31/2008

LADAS & PARRY Suite #2100 5670 Wilshire Boulevard Los Angeles, CA 90036-5679 EXAMINER

PAUL, DISLER

ART UNIT PAPER NUMBER

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10/786,455 02/24/2004 Kei Sakagami

B-5382 621724-9

4911

TITLE OF INVENTION: CIRCUIT AND PROGRAM FOR PROCESSING MULTICHANNEL AUDIO SIGNALS AND APPARATUS FOR REPRODUCING SAME

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
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| nonprovisional | NO | \$1440 | \$300 | \$0 | \$1740 | 04/30/2008 |

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| Los Angeles, CA | . 90030-3079 | | | | • | (Depositor's name) |
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| APPLICATION NO. | FILING DATE | | FIRST NAMED INVENTOR | | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/786,455 | 02/24/2004 | | Kei Sakagami | | B-5382 621724-9 | 4911 |
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this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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| <u>``</u> | Application No. | Applicant(s) |
|---|--|---|
| | 10/786,455 | SAKAGAMI ET AL. |
| Notice of Allowability | Examiner | Art Unit |
| | Disler Paul | 2615 |
| The MAILING DATE of this communication apper All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI of the Office or upon petition by the applicant. See 37 CFR 1.313 | or other appropriate communication IGHTS. This application is subject to | will be mailed in due course. THIS |
| | | |
| 2. The allowed claim(s) is/are 1,4 and 6-9. | | |
| 3. Acknowledgment is made of a claim for foreign priority una a) All b) Some* c) None of the: 1. Certified copies of the priority documents have 2. Certified copies of the priority documents have 3. Copies of the certified copies of the priority do International Bureau (PCT Rule 17.2(a)). * Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give 5. CORRECTED DRAWINGS (as "replacement sheets") must (a) including changes required by the Notice of Draftspers 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner Paper No./Mail Date Paper No./Mail Date 1 dentifying indicia such as the application number (see 37 CFR each sheet. Replacement sheet(s) should be labeled as such in 6. DEPOSIT OF and/or INFORMATION about the deposit attached Examiner's comment regarding REQUIREMENT | e been received. e been received in Application No cuments have been received in this of this communication to file a reply MENT of this application. nitted. Note the attached EXAMINER es reason(s) why the oath or declara st be submitted. son's Patent Drawing Review (PTO _ 's Amendment / Comment or in the of 1.84(c)) should be written on the draw the header according to 37 CFR 1.121 posit of BIOLOGICAL MATERIAL | national stage application from the complying with the requirements R'S AMENDMENT or NOTICE OF ation is deficient. -948) attached Office action of ings in the front (not the back) of (d). must be submitted. Note the |
| Attachment(s) 1. ☑ Notice of References Cited (PTO-892) 2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 3. ☑ Information Disclosure Statements (PTO/SB/08), | Paper No./Mail Da 7. Examiner's Amend | y (PTO-413), ate |

Application/Control Number: 10/786,455

Art Unit: 2615

DETAILED ACTION

Allowable Subject Matter

1. Claims 1,4,6-9 are allowed.

Re claim 1, While, Iwamatsu disclose a circuit for processing multichannel audio signals (fig.1/ Lt, Rt to be processed), comprising: a frequency characteristics correction device for correcting frequency characteristics of an audio signal of a center channel, utilizing correction characteristics determined based on a head related transfer function to output a corrected channel with mixing and outputting the signal.

However, Iwamatsu fail to disclose of the specific wherein a band-pass filter for extracting a predetermined frequency band from the corrected signal from the frequency characteristics correction device to output an extracted signal; a band eliminate filter for removing said predetermined frequency band from the corrected signal from the frequency characteristics correction device to output central channel audio signals; an output device for mixing the audio signal component having the frequency characteristics corrected said extracted signal with an audio signal of the right channel and an audio signal of the left channel to generate mixed output audio

Application/Control Number:

10/786,455 Art Unit: 2615

signals, and outputting said mixed output audio signals as a right channel output audio signal and a left channel output audio signal.

Similarly, independent claims 8-9 have been analyzed and allowed in view of the same limitations as disclose in claim 1.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Disler Paul whose telephone number is 571-270-1187. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Information Disclosure Statement USSN-10/786,455

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July 29, 2005 Page 4

| Form PTO-1449 (Modified) | ATTY DOCKET NO. B-5382 621724-9 | U.S. SERIAL NO. 10/786,455 | |
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| LIST OF PATENTS AND PUBLICATIONS | APPLICANT(S) Kei SAKAGAMI, et al. | | |
| STATEMENT | Filing DATE February 24, 2004 | GROUP 2644 | |

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | DOCUMENT NUMBER | ISSUE DATE | NAME | CLASS | SUBCLASS | PILING DATE OF 102(0) DATE IP APPROPRIATE |
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FOREIGN PATENT DOCUMENTS

| | DOCUMENT NUMBER | PUBLICATION DATE | COUNTRY | CLASS | CLASS SUB- | TRANSLATION YES/NO |
|------|-----------------|---------------------|---------|-------|---------------|---|
| /DP/ | 10-336797 | 12/1998 | JР | | | English-language abstract and translation |
| /DP/ | 97/25834 | 7/1997 | WO | | | |
| /DP/ | 01/60118 Al | 8/2001 | WO | | | |

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

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| /Disler Paul/ | 07/04/2007 |
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Information Disclosure Statement February 24, 2004 Page 3

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| LIST OF PATENTS AND PUBLICATIONS | APPLICANT(S) Kei SAKAGAMI, et al. | | |
| STATEMENT | riling date concurrently herewith | group not yet assigned | |

EXAMINER DOCUMENT NUMBER ISSUE NAME CLASS SUBCLASS FILING DATE OF 102(6) DATE IF APPROPRIATE

| OTHER DOCUMEN | TS (Including Author. | Title, Date, Per | inent Pages, Etc.) |
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Application/Control No. 10/786,455 Notice of References Cited Application/Control No. 10/786,455 Examiner Disler Paul Applicant(s)/Patent Under Reexamination SAKAGAMI ET AL. Page 1 of 1

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| * | В | US-7,043,031 | 05-2006 | Klayman et al. | 381/98 |
| * | C | US-2002/0015499 | 02-2002 | Willems, Stefan Marghuerite Jean | 381/1 |
| * | D | US-7,292,697 | 11-2007 | Tatsuta et al. | 381/302 |
| * | E | US-6,914,988 | 07-2005 | Irwan et al. | 381/22 |
| * | F | US-4,841,573 | 06-1989 | Fujita, Shinichi | 381/27 |
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